



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,088	10/31/2003	Naoto Kawamura	200207667-1	1012
22879	7590	04/24/2006	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			HSIEH, SHIH WEN	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

10

<b>Office Action Summary</b>	Application No. 10/698,088	Applicant(s) KAWAMURA ET AL.	
	Examiner Shih-wen Hsieh	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14, 15 and 26-32 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-32 is/are allowed.
- 6) ☒ Claim(s) 14 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Drogo et al. (US Pat. No. 5,528,269).

Drogo et al. teaches a print cartridge comprising a housing (16, Fig. 1) mechanically interoperable with printing systems of a plurality of printing system families; means for ejecting fluid (17, Fig. 2) disposed on the housing; and means for electrically coupling (18, Fig. 2) to a printing system, the means for electrically coupling including means for permitting detection of installation of the print cartridge and means for permitting operation of the means for ejecting fluid, wherein the means for permitting detection of installation of the print cartridge

comprises means for sensing a temperature of the print cartridge (refer to column 2 lines 38-42 and 46-49).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drogo et al. (US Pat. No. 5,528,269) in view of Buskirk et al. (US Pat. No. 4,872,027).

The device of Drogo et al. DIFFERS from claim 15 in that it fails to teach a print cartridge wherein the means for permitting operation of the means for ejecting fluid comprises a plurality of uniquely positioned contact areas and the means for permitting detection of installation of the print cartridge comprises a plurality of commonly positioned contact areas.

However, Buskirk et al. teaches a print cartridge wherein the means for permitting operation of the means for ejecting fluid comprises a plurality of uniquely positioned contact areas (Fig. 5) and means for permitting detection of installation of the print cartridge comprises a plurality of commonly positioned contact areas (I1 and I2, Fig. 6).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Drogo et al. to incorporate a plurality of uniquely position contact areas and commonly positioned contact areas as taught by Buskirk et al. for the purpose of assuring reliable contact between elements.

***Allowable Subject Matter***

5. Claims 26-32 are allowed.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2861

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Response to Arguments***

7. Applicant's arguments filed on Feb. 14, 2006 have been fully considered but they are not persuasive.

Applicants arguments to reference US 5,528,269 issued to Drogo et al. is respectfully disagreed. Please refer to at least fig. 3, in fig. 3, step 32 is a step to determine whether a new pen being installed. This step corresponds to means for detecting of installation of the print cartridge. Also, as Applicants mentioned in their argument in page 6, col. 3, lines 18-39, in which, the sampling voltage at node 23 will be  $V_s$  if the cartridge (16) is not in the cartridge holder (14) due to the absent of the sample resistor (24), which is disposed in the electrical circuit of the cartridge (16). Others, such as Applicants also mentioned in col. 3, lines 39-50, in which means for detecting the installation of a cartridge also being taught. As to the means for permitting detection of installation of the print cartridge comprising means for sensing a temperature of the print cartridge, Drogo et al. teach a "TEMP SENSOR", which is disposed in the electrical circuit of the cartridge (refer to col. 2, lines 38-45). A temperature sensor, per se, is a piece of hardware, which is used to sense a temperature of a certain device. Although the temperature sensor in Drogo et al.'s invention does not specify which device's temperature is to be sensed. It would have been an obvious matter that at least the

Art Unit: 2861

temperature of the cartridge will be sensed. Certainly, the temperature of the head can also be sensed by this temperature sensor. These function are well known in the ink jet printer field, and the purpose of sensing cartridge/head temperature ia also well known in the ink jet printer field. Therefore, the means for permitting detection of installation of the print cartridge comprising means for sensing a temperature of the print cartridge is actually taught by Drogo et al. Because, if the cartridge (16) is not installed in the cartridge holder (14), then the temperature sensor has nothing to sense. Once the cartridge is installed in the cartridge holder, as the wiring connections shown in Drogo et al.'s fig. 4, the sensed temperature will be send to the controller (18) through wires (21) and wires (not numbered in fig. 4) to controller (18).

Applicants further argued that: "For example, Drogo et al. does not disclose any detection or identification processes involving the temperature sensor of fig. 4". Examiner respectfully disagrees. Because claim 14 does not claim any detection or identification processes.

Since Drogo et al. teach each and every features in claim 14, therefore, the rejection to claim 14 remains as is. Applicants arguments to claim 15, which depends directly on claim 14 are based on Drogo et al.'s reference do not teach the emphasized portion in claim 14, therefore reference Buskirk fails to cure the deficiencies of the Drogo et al.'s reference. As discussed above, Drogo et al. still read on claim 14, therefore, a prima facie case is established.

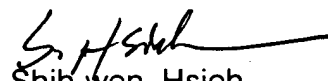
Art Unit: 2861

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S D. Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**SHIH-WEN HSIEH**  
**PRIMARY EXAMINER**

  
Shih-wen Hsieh  
Primary Examiner  
Art Unit 2861

SWH

  
April 19, 2006